

Urban Partnership Grant Update

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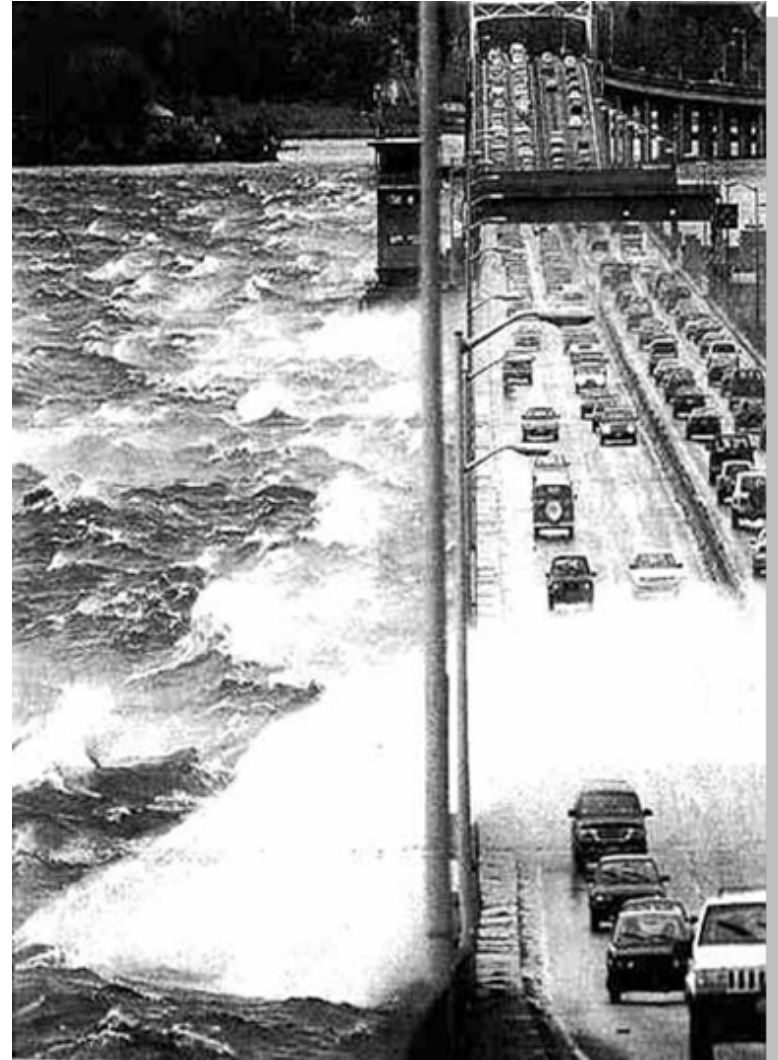
House Transportation Committee
January 16, 2008



The SR 520 Corridor

The SR 520 Bridges – Evergreen Point and Portage Bay

- Are vulnerable to collapse during a windstorm or major earthquake
- Carry about 115,000 vehicles (and 150,000 people) per day – almost double what they were designed for
- Suffer heavy congestion which reduces their actual operating capacity by nearly 40%
- Financial and environmental constraints limit the number of lanes that can be added to the existing corridor



The Lake Washington Urban Partnership



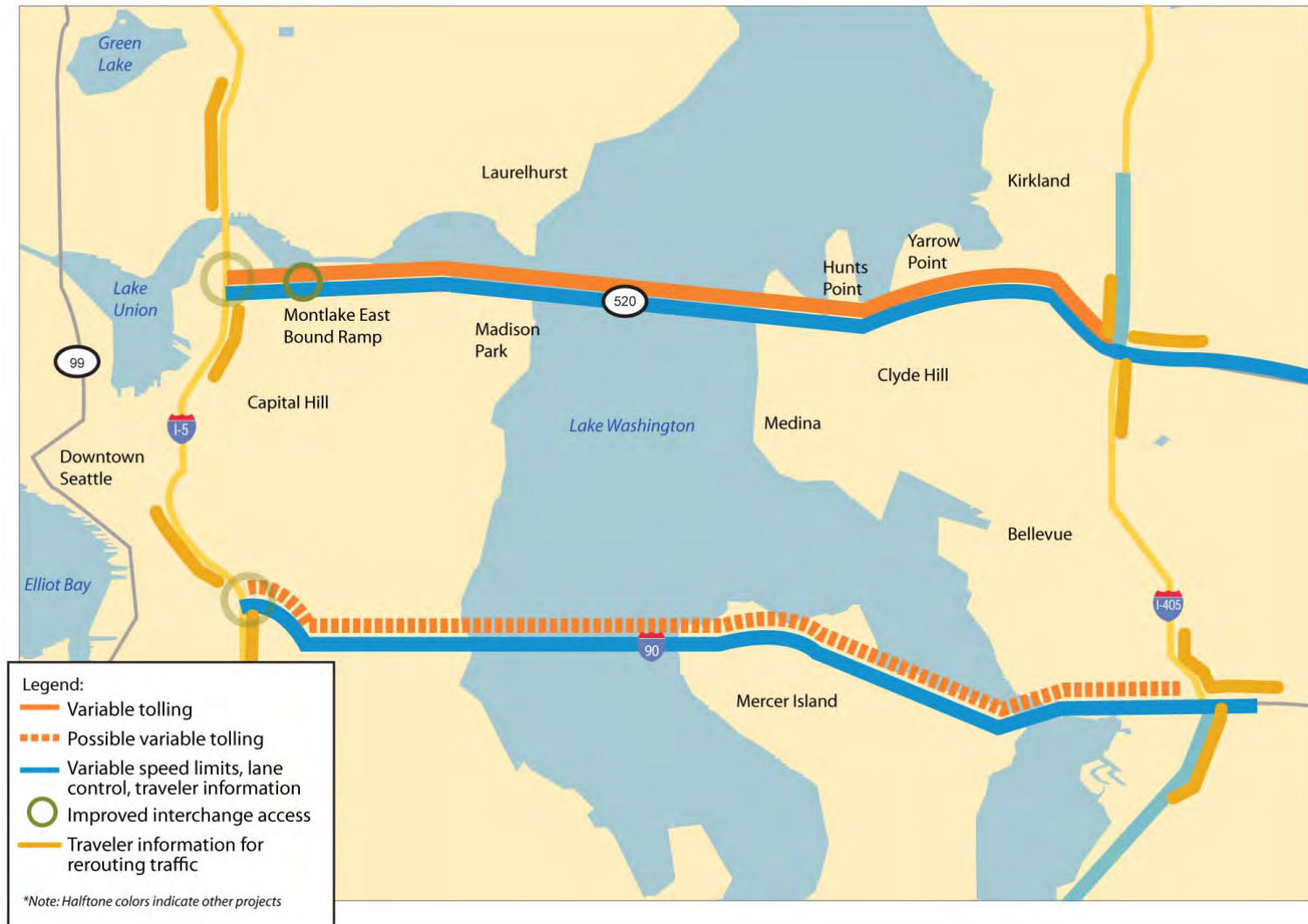
- Part of USDOT initiative to reduce congestion in five geographic regions across the country through implementing the “Four T’s”
 - Seattle/King County area
 - San Francisco
 - Minneapolis
 - Miami
 - New York City

- The “Four T’s”
 - Tolling
 - Technology and Traffic Management
 - Transit
 - Telecommuting

- WSDOT, PSRC and King County are leading the partnership agreement to implement comprehensive congestion reduction strategies

Electronic Variable Tolling – No Toll Booths

Electronic, variable tolling would give a break to travelers who can use the bridge during less crowded times and would have a higher price during congested times.



Tolls and SR 520 – Finance Plan Scenarios



The existing SR 520 Bridge.

- WSDOT completed a finance plan for SR 520 as requested by the Legislature
- The plan has a variety of funding scenarios, including two approaches for pre-completion tolling
- The revenue raised by pre-completion tolling would range between \$480 and \$570 million

Technology

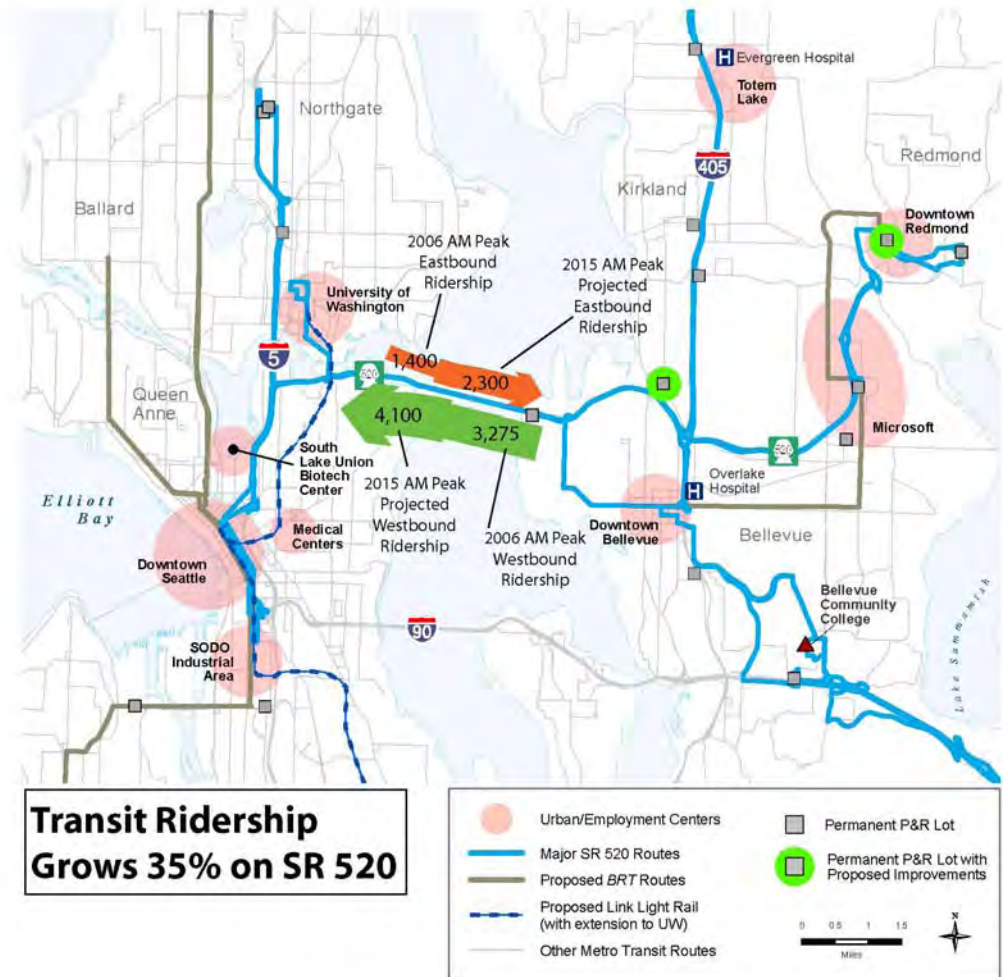
- Technology provides opportunities to keep traffic moving
- Existing tools, such as ramp meters, traffic loops, and changeable message signs, can be applied on SR 520
- Advanced technologies proven in other parts of the world can also be used to improve commutes on SR 520, I-90, and at the I-5 and I-405 interchanges with SR 520
 - These include variable speed limits, improved on and off ramp access, and more frequent traveler information



Image of overhead variable speed signs to keep traffic moving.

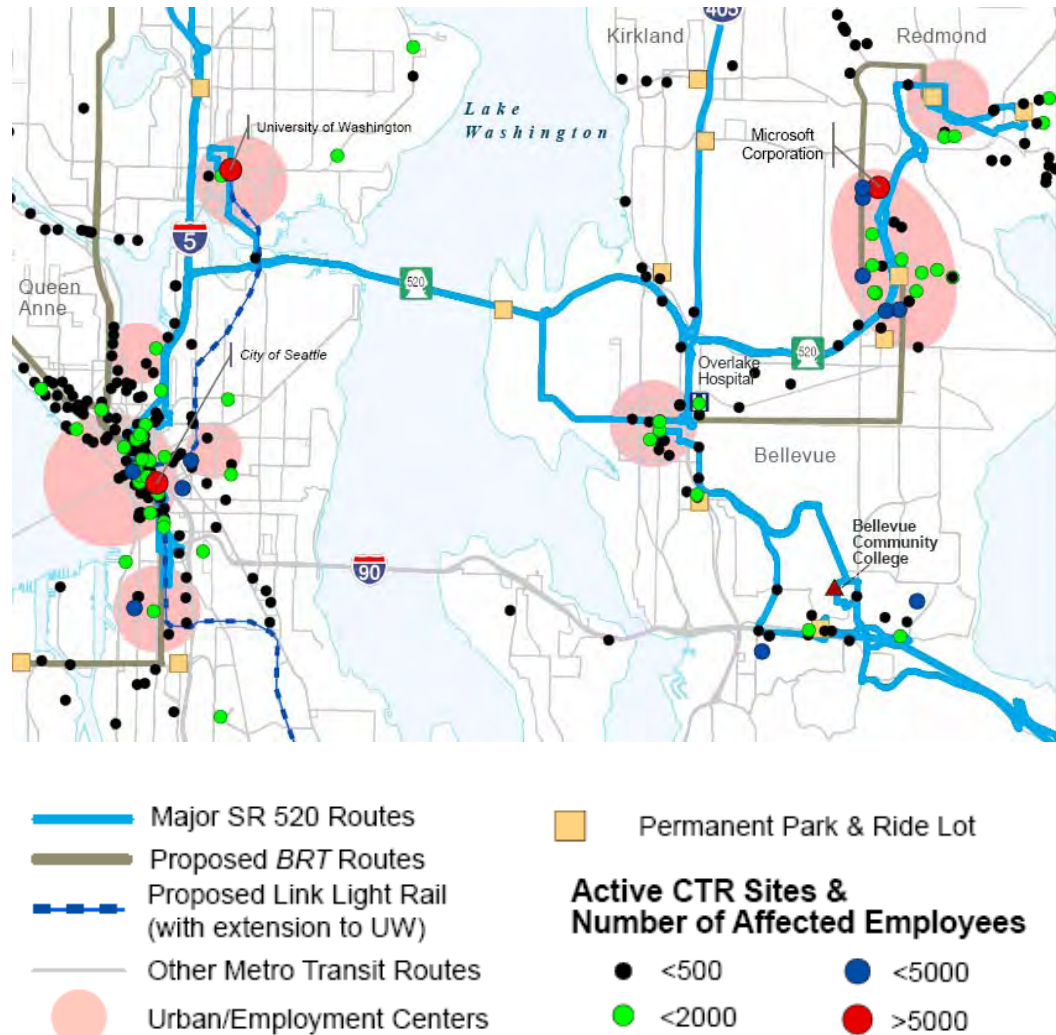
Transit Service

- SR 520 hosts
 - 24 bus routes
 - 400 bus trips a day
 - 13,400 riders per day
- Smart Card payment and new rider information services will make riding more convenient
- UPA provides capital funds for new buses, but King County needs operational funds to make the purchase
- Transit ridership would grow from 18% to 22% of market share by 2010 in the peak direction (westbound) morning commute



Telecommuting/TDM

- Commute trip reduction strategies have taken over 19,000 solo drivers off the road through transit, vanpooling and other activities
- With a foundation of knowledge-based employment, widespread broadband internet access, and supportive employers, the region is poised to build on its telecommute programs to make further reductions in busy commute travel times



Next Steps

- Preliminary design and engineering
- Public engagement
- If the Legislature determines that pre-completion tolling is called for, federal funding is available



Overview of Regional Tolling Activities

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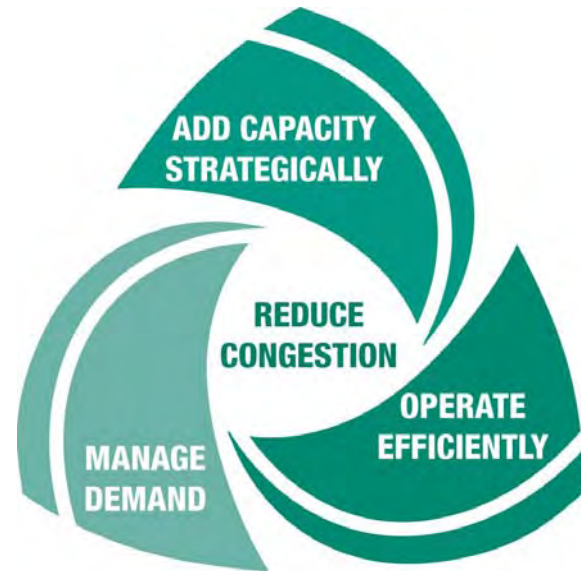
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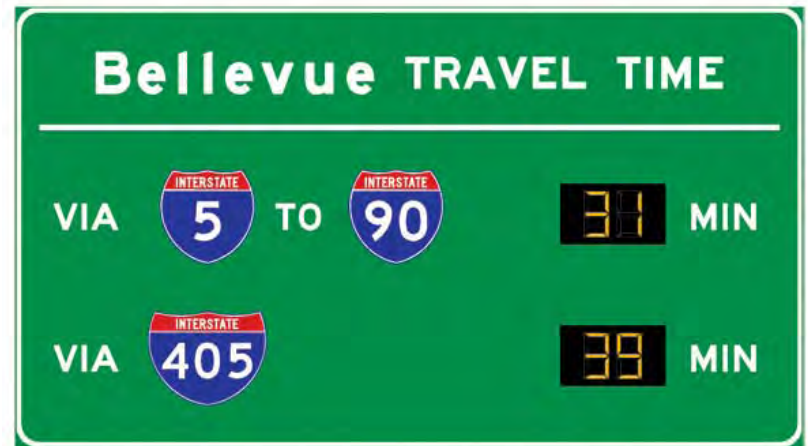
Setting the Stage – Why Consider Tolling?

- Addressing Transportation Problems
- Objectives for Tolling
- Tolling Concepts



Addressing Transportation Problems

- Strategic Bottleneck Capacity Investments
 - 2003 Nickel Package raised \$3.9 billion
 - 2005 TPA raised \$7.1 billion
- System Management
 - Incident Response
 - Traveler Information
 - Ramp Meters
 - HOV and Express Lanes
 - Active Traffic Management
 - Tolling
- Provide Travel Choices
 - Improve Transit
 - Telecommuting
 - Vanpools



Example of traveler information system.

Objectives for Tolling

Tolling offers potential benefits to keep traffic and the economy moving



Simulated HOT lanes on SR 167.

- Revenue Generation
 - To help build projects
- Congestion Management
 - Move optional trips out of busiest travel times
 - Optimize vehicle throughput
 - Encourage shift to transit or carpools
- Mixed Approach
 - Raise funds and improve throughput
- Environmental Benefits
 - Reduce greenhouse gases

Tolling Concepts

- Collection
 - No toll booths
 - Electronic (cashless) toll collection
 - Video enforcement and billing
- Tolling Methods
 - Revenue generation and bond repayment
 - Time of day (peak period)
 - Dynamic (rates based on traffic volumes)
- Tolling Applications
 - Bridges and structures
 - HOT lanes/Express toll lanes
 - Full corridor tolling
 - System-wide tolling
 - Area or cordon tolling
 - Parking policies

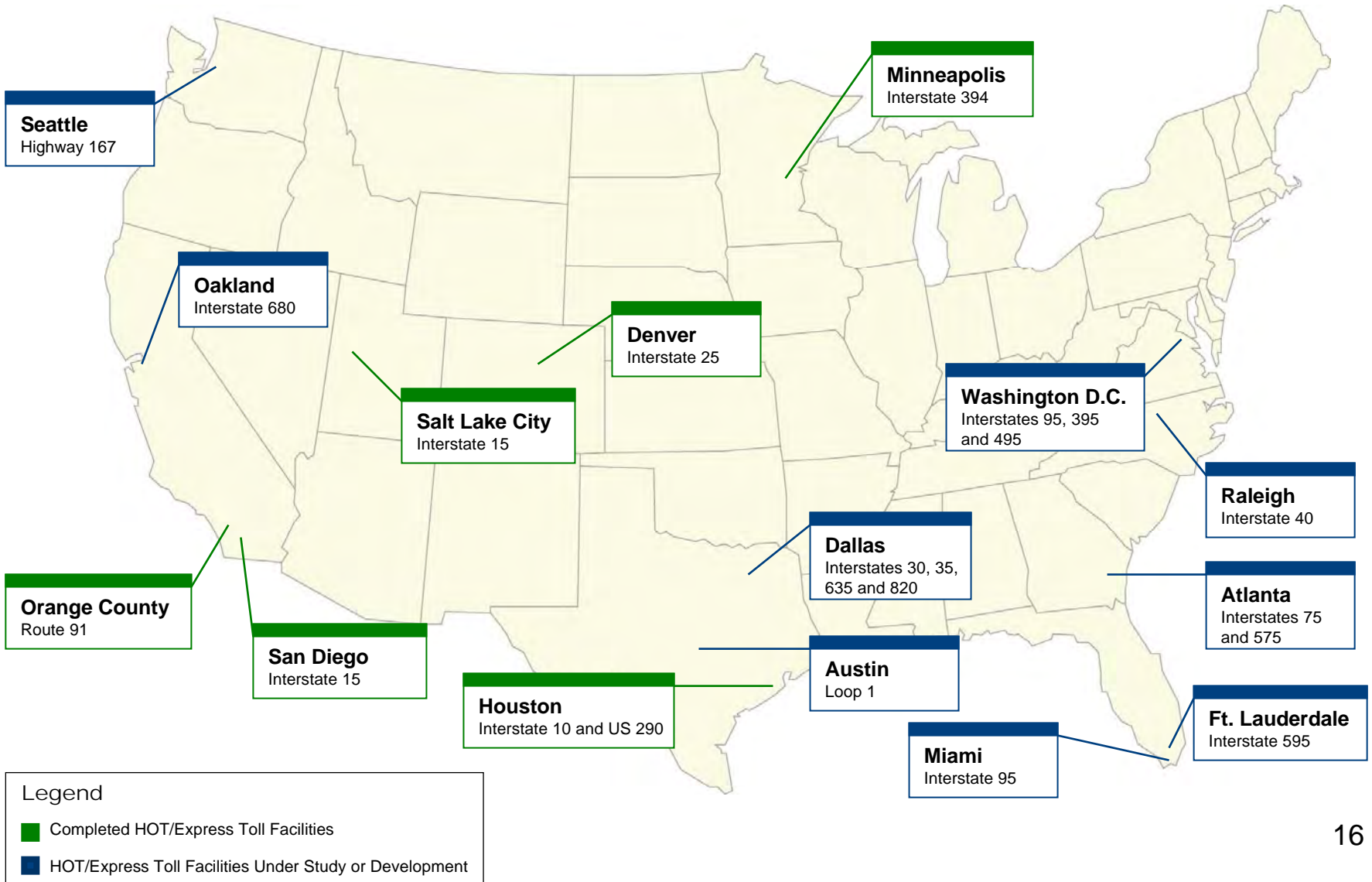


Drivers crossing the Tacoma Narrows Bridge pay tolls electronically – no need to stop at a booth.

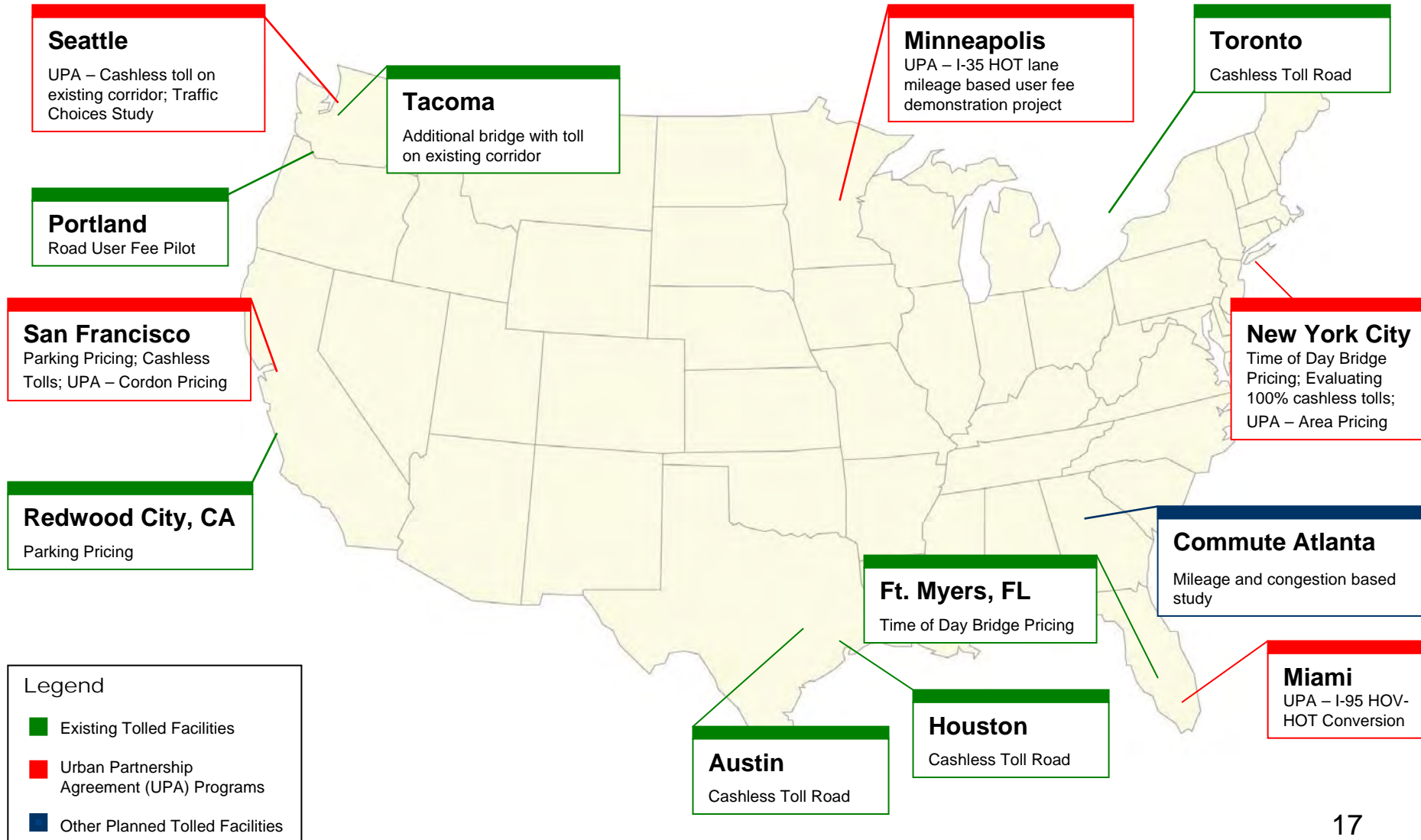
Tolling is happening successfully in the US and around the world.

- **HOT Lanes in the US**
- **Other Approaches – North America**
- **Other Approaches – International**
- **Washington State Projects and Policy Development**

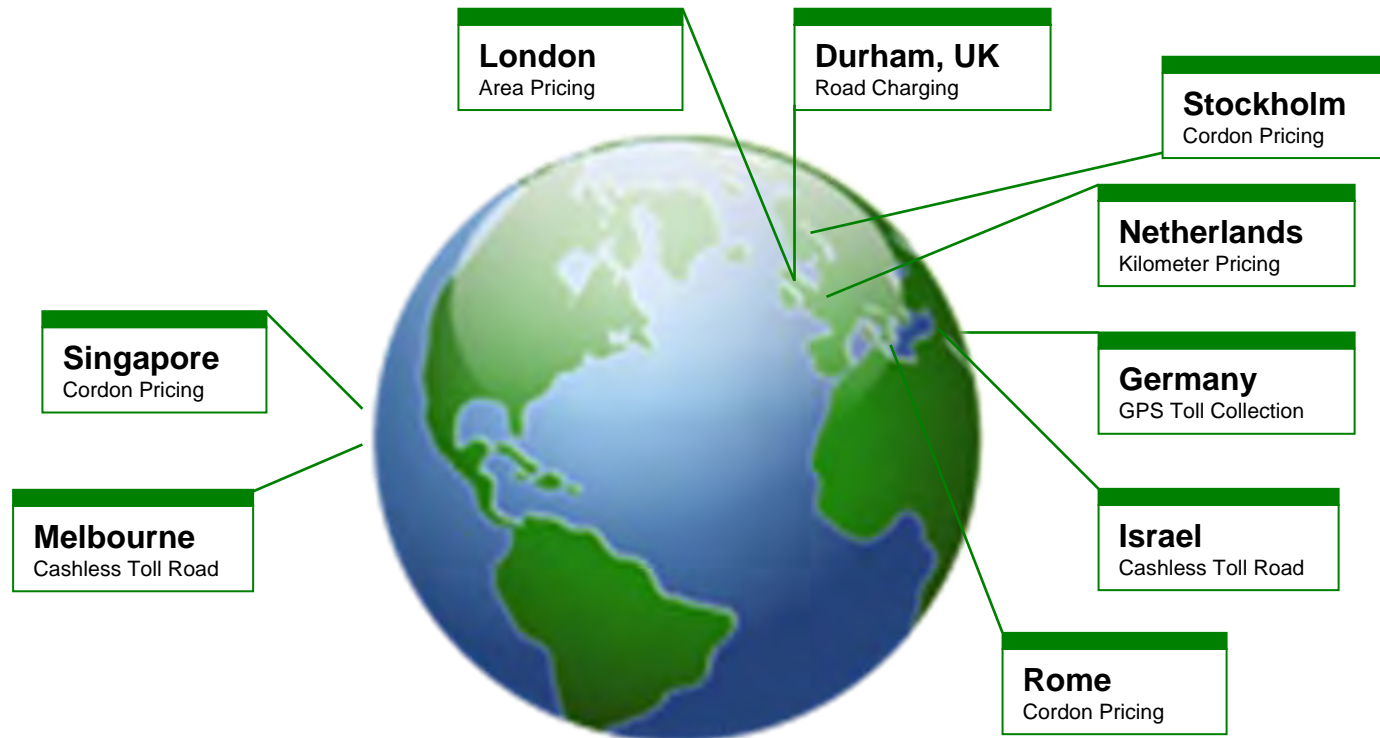
HOT Lanes in the US



Other Congestion Management Approaches – North America



Other Examples – International



Legend

■ Existing Tolloed Facilities

Overview of Efforts in Central Puget Sound

- Federal
 - Urban Partnership Program
- State
 - Legislative Tolling Bill
 - Commission Tolling Study II
 - SR 520 Finance Discussions and Approach
 - Congestion Relief Analysis II
 - Public Awareness and Acceptance of Pricing
 - Project-level discussions
- Region
 - PSRC Update to Destination 2030 Metropolitan Transportation Plan
- Local
 - King County System Tolling and Carbon Assessment
 - King County Ferry District Planning
 - Transit element of UPA
 - Seattle Congestion Pricing Study for the Urban Mobility Plan

Looking Ahead

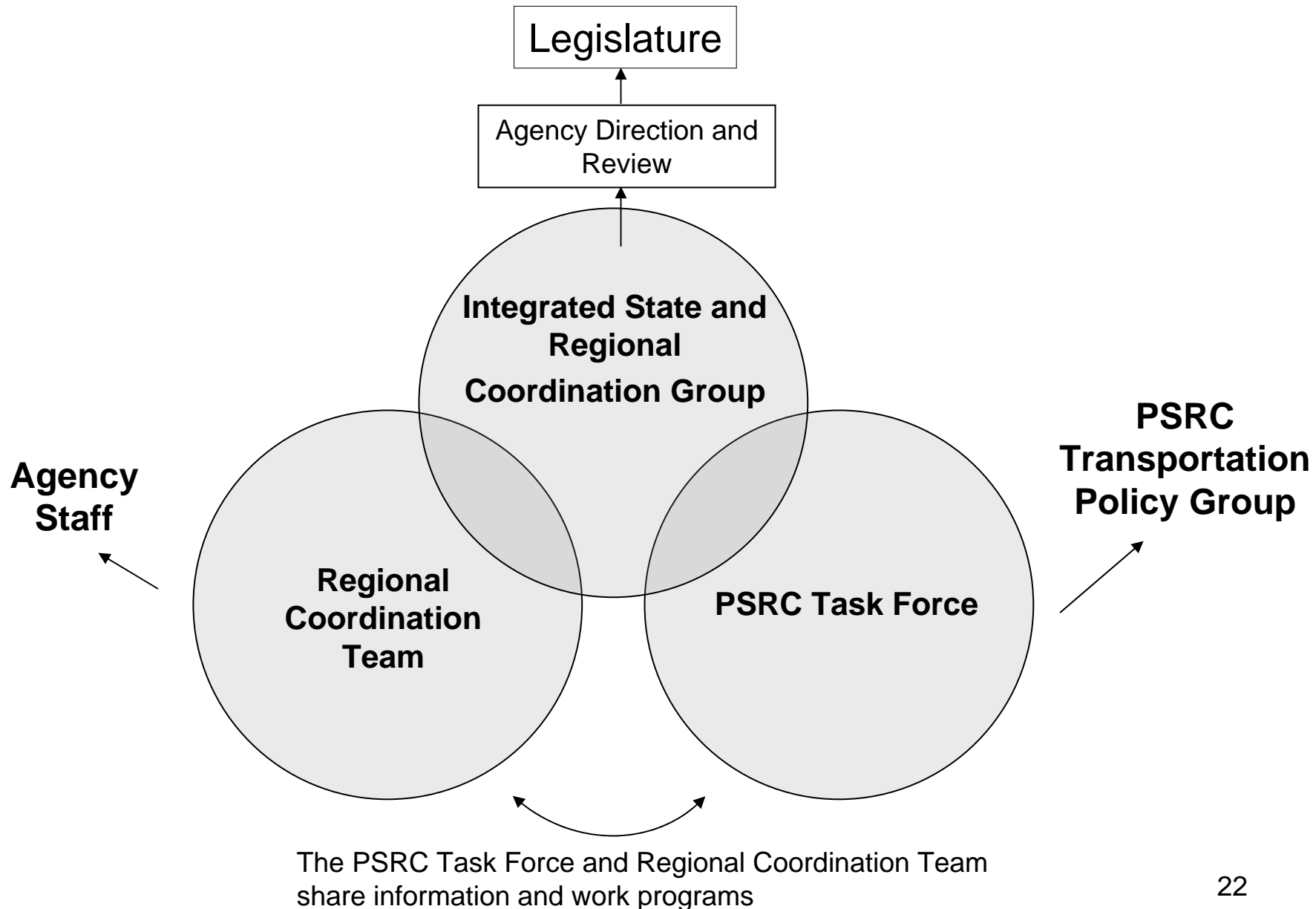
- Near-term: Now – 2009
 - Tacoma Narrows Bridge
 - SR 167 HOT Lanes Pilot Project
 - Urban Partnership Agreement
 - SR 520 Financing Options
- Mid-term: 2010 – 2020
 - I-405
 - Columbia River Crossing
- Long-term: 2020 – 2030
 - PSRC Update to Destination 2030
 - Washington Transportation Plan



Simulation of future SR 167 HOT Lanes.

Puget Sound Regional Coordination

Puget Sound Regional Tolling Coordination Efforts



Puget Sound Regional Coordination Issues

Guiding Principles

1. Tolling should provide measurable user benefits
2. We should understand effects of tolling on the transportation system and how to encourage good system performance
3. We need to understand how toll rate structures can affect societal, environmental and land use decisions
4. Geographic, income and social equity and fairness must be considered
5. There should be a forum for regional input into tolling
6. We must ensure effective long-term system-wide operations

Puget Sound Regional Coordination Issues

7. Privacy protections must be adequate
8. Different finance approaches have different implications for projects
9. Public understanding, awareness and acceptance is needed
10. Understanding toll rate implications
11. How we will integrate current and future toll collection and enforcement strategies is important for interoperability over time
12. Define and clarify how and when toll revenues can be used

We are learning about benefits to users

- Tacoma Narrows Bridge, Tacoma, WA
 - Speeds have increased between 25 and 40 mph for eastbound motorists during the morning commute
 - Daily commutes are reportedly 30 to 60 minutes shorter.
 - *“There’s more time to spend at home, and the gas saved not sitting in traffic for an hour on Friday more than makes up for it.”*
- I-394 Mn/Pass Express Lanes, Minneapolis, MN
 - HOT/Express lane is 20 mph faster than regular lanes
- Benefits to freight
 - The value of time in freight transport is five to ten times higher than for passenger transport
 - The benefits of reliability and travel time savings for urban freight exceed the costs



The now-completed new Tacoma Narrows Bridge under construction.

We are learning about system performance



The I-394 Mn/Pass Express Lanes.

- Tacoma Narrows Bridge, Tacoma, WA
 - The new bridge effectively doubled capacity
- I-394 Mn/Pass Express Lanes, Minneapolis, MN
 - Regular lane speeds during rush-hour have increased up to 8%
 - There are about 1,600 fewer cars in the regular lanes during commute times
- I-15 FasTrak, San Diego, CA
 - Carpools increased over 100% between 1998 and 2006
 - Number of vehicles in HOV lane are up 66% in the same time frame

We are learning about system improvements

- Toll revenues have allowed highway and transit system capacity improvements
 - New Tacoma Narrows Bridge
 - SR 91 Express Lanes center roadway, Los Angeles, CA
 - I-15 FasTrak, Corridor Bus Service, San Diego, CA
 - E-470, new roadway to airport
 - 407 ETR in Toronto is new capacity financed entirely by tolls



The new Tacoma Narrows Bridge provides additional capacity.

We are learning about fairness

- I-394 Mn/Pass Express Lanes, Minneapolis, MN
 - 64% of low income drivers responding said they think allowing solo drivers to pay a fee to use the HOV lane is a good idea. This compares to 61% of middle income and 71% of high income motorists
- SR 91 Express Lanes, Los Angeles, CA
 - Over 50% of low-income commuters support the Express Toll Lane concept – similar to other income groups
- King County area focus groups
 - Participants are concerned about effects on people with low incomes
 - Most are willing to try tolled lanes if they get a faster trip



Free flowing traffic on the SR 91 Express Lanes.

We are learning about privacy protections



The Tacoma Narrows Bridge developed privacy protections for its users.

- Tacoma Narrows Bridge sets the stage for us
 - Photo images are for enforcement only
 - Personal information only available with a court order
 - Privacy policy is included in the customer service agreement
 - Anonymous accounts are available

- Common toll industry privacy practices are developing across the country
 - Privacy policies are being developed and communicated to customers
 - Data is safeguarded at the system and operational levels
 - Laws and policy govern access to data by third parties
 - Many agencies provide anonymous accounts and/or payment options

We are learning about public awareness and acceptance



Citizens sign up for Good to Go! accounts.

HOT Lanes

- In surveys and focus groups, people support HOT lanes
- Focus group participants who support HOT lanes like:
 - Having a choice whether to use the HOT lane
 - Ability to get a faster trip when needed
- Focus group participants who do not favor HOT lanes note:
 - Concern for impacts to low income drivers
 - Belief that government should fully fund transportation
- Focus group participants move toward acceptance when they learn that low income users in other areas are supportive of HOT lanes

We are learning about public awareness and acceptance

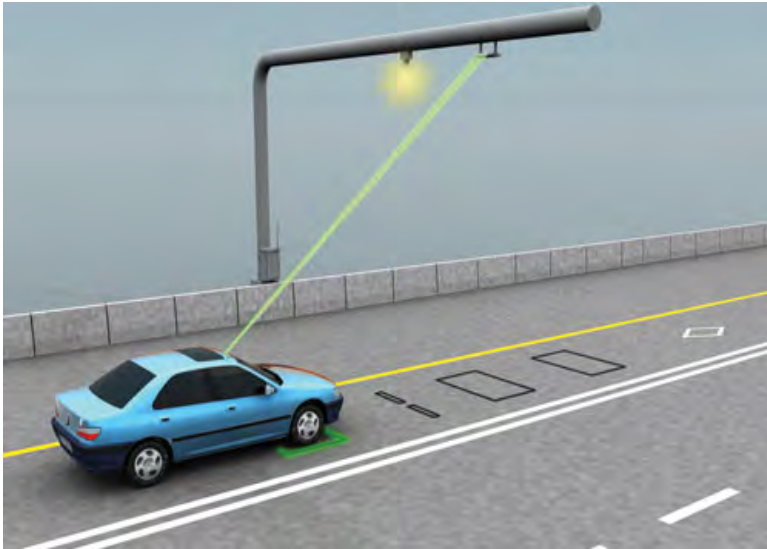
Tolling on SR 520 – Focus Groups and Survey Results

- People are aware that the SR 520 bridge needs to be replaced
- People are aware that tolls are part of the funding package
- People are open to pre-completion tolling on SR 520 if:
 - They understand the need for replacement
 - They know the plan for replacement
 - They know the cost of replacement
 - They know the schedule for replacement
 - It keeps the overall toll lower
 - It reduces reliance on other tolls
- More work needs to be done to educate people how variable tolling works to make traffic flow better



The existing SR 520 Bridge.

We are learning about electronic tolling and interoperability



Simulation of electronic tolling technology for the SR 167 HOT Lanes Pilot Project.

- Washington drivers have easily embraced electronic tolling and signed up in record numbers – over 91,000 accounts and 200,000 transponders in the first six months – the most successful launch in the country
- At the Tacoma Narrows Bridge, manual toll booths are under-used, indicating that “cashless” toll systems are a more viable option
- The *Good to Go!* payment system used on the Tacoma Narrows Bridge will also be used on the SR 167 HOT Lanes Pilot Project

We are learning about enforcement

- Enforcement is seen as a fairness issue – no cheaters
- Tacoma Narrows Bridge and SR 167 HOT Lanes
 - Photo enforcement works when cameras are maintained and positive relationships with courts and Washington State Patrol are developed
 - Coordinating with Washington State Patrol
 - Involved in pre-opening planning
 - Design includes enforcement pull-outs for safety
 - Coordinating with court systems and officers
 - Program intent
 - Signage
 - Roadway design
 - Driver Education “How to drive the HOT Lanes”
 - Printed materials
 - “Rachel’s Drive” video
- WSDOT is participating with other HOT lanes operators to form a national information exchange group to discuss enforcement and operational issues



Entering the I-25 HOV/Tolled Express Lanes in Colorado.

We are learning about uses of revenue

- I-15 FasTrak, San Diego, CA
 - Toll revenues are used for enforcement, transit and contributions to capital improvements in the corridor
- I-25 HOV/Tolled Express Lanes, Denver, CO
 - Revenues are used for operations, maintenance, enforcement and rehabilitation. The funding agreement with FTA also called for net revenues to be used for transit. Colorado expects it will take ten years before there are net revenues.



I-15 FasTrak funds the Inland Breeze (Route 990) – an express bus service.

We are learning more about accountability

The new Tacoma Narrows Bridge has taught us:

- When people pay directly, through tolls, they move from commuters to customers, with different expectations
- Need to provide clear and detailed communications about uses of revenue in advance – capital and operations
 - *“We expected to have 100% of our toll money go towards paying down the bridge. The tow trucks are a waste of money.”*
- Accurate, timely and easy-to-understand reports are essential for conveying operations

We need to learn more about...

- Benefits to all users
- The system effects of tolling
- How various tolling structures affect environmental and land use decisions
- Regional input into the state program
- Implications of different financing approaches and rate structures
- Public awareness, understanding and acceptance
- Technological advancement and enforcement options



Express Lanes on SR 91 in California.